(11) (A) No. 973840

(45) ISSUED Sep. 2, 1975

(52) CLASS 211-24
C.R. CL. 20-125
24-71

(19) (CA) # CANADIAN PATENT

(54) POLE RACK ASSEMBLY WITH SLIDABLY MOUNTED CLAMP

(72) Michel, Leo, Willowdale, Ontario, Canada,
Borchmann, Ernest K., Bradford, Ontario, Canada,
and Welch, Terry, Scarborough, Ontario, Canada

Granted to Diwalt Industries Limited, Toronto, Ontario, Canada

(21) APPLICATION No. 181,046
(22) FILED Sep. 14, 1973

(30) PRIORITY DATE

No. OF CLAIMS 12

DISTRIBUTED BY THE PATENT OFFICE, OTTAWA.
CCA-274 (2-74)

SUBSTITUTE

REMPLACEMENT

SECTION is not Present

Cette Section est Absente

FIELD OF INVENTION

The invention relates to a rack having a ring or rod member slidably mounted on a pole for supporting articles such as towels.

PRIOR ART

While a ring or rod member mounted on a pole is a conventional means for supporting articles, such as towels, in known towel racks, either the member is mounted at one position on the pole and cannot be moved along the pole, or it is movably mounted on the pole and requires a clamping means to retain the member at a desired position along the pole.

United States Patent 3,323,851 (Duboff) issued June 6, 1967 shows an embodiment of a towel rack wherein the pole is extendible for mounting between a floor and ceiling, the ring member being slidably mounted on the pole and having a clamping means to retain the member at the desired position along the pole. However, further ring members and clamping means cannot be mounted on the pole when the pole is extended between the floor and ceiling. Other known towel racks with a pole, ring or rod members movable along the pole and clamping means for clamping the members at a desired position on the pole have the same disadvantage. It is desirable to be able to insert additional rings or rod members and clamping means when the pole is extended to provide further storage space for towels.

Therefore, it is an object of the present invention to provide a clamping means for a ring or rod member which is slidably mountable on a pole and which can be mounted on the pole when the pole is extended between the floor and ceiling of a room.

It is a further object of the present invention to provide an assembly of said clamping means and a ring or rod

member for supporting towels mounted on said clamping means.

It is a still further object of the present invention to provide a towel rack having a pole, said clamping means and said ring or rod member.

BRIEF DESCRIPTION OF INVENTION

It has been found that these objects and others which will become apparent from the description of the invention are possible with a clamping means comprising two arms constructed of a resilient material held in a spaced apart relationship by a bridge integral with both arms so that the arms are capable of forcibly engaging a pole of a predetermined diameter, said bridge having at least one indentation thereon whereon an article support member is mounted.

DETAILED DESCRIPTION OF THE INVENTION

The invention will become more apparent from the following description of a preferred embodiment of the invention when considered in conjunction with the drawings:

Fig. 1 is a perspective view of one embodiment of an assembly of the invention mounted slidably on a section of pole;

Fig. 2 is a perspective view of another embodiment of an assembly of the invention mounted slidably on a section of pole;

Fig. 3 is one arrangement of a plurality of assemblies of the invention mounted slidably on two poles extended between the ceiling and the floor of a room to form a towel rack;

Fig. 4 is a top plan view of a clamping means of the invention; and

Fig. 5 is a side view of the clamping means shown in Fig. 4.

Fig. 6 is a perspective view of still another embodiment of an assembly of the invention;

Fig. 7 is a top plan view of the assembly of Fig. 6; and Fig. 8 is a side view of the assembly of Fig. 7.

In Figs 1 and 2 clamping means 1 includes arms 2 and bridge 3 which is integral with both arms and holds them in spaced apart relationship. The arms, at least, are constructed of a resilient material so that they may be forced onto pole 4 when the widest space between ~~teh~~ the arms in the normal position is equal to or slightly less than the diameter of the pole. In the preferred embodiment shown the arms are arc shaped, curved to the contour of the pole, but this is not an essential feature of the invention.

Preferably the arms are constructed of a smooth, resilient plastic material, such as polyethylene or polystyrene so that when the clamping means is mounted on the pole it will slide along the pole when forced without seizing up. The plastic clamping means may be opaque or translucent and may be metallized.

Indentations such as holes or depressions 5 are provided in the bridge for mounting an article support member such as a ring 6 or rod 7 which in turn may be used to support towels therefrom. While in Figs. 1, 2, 4 and 5 holes are shown on opposite legs 9 of the bridge perforating each leg, where the member mounted on the bridge is a split ring, it will be understood depressions into which the split ends of the ring are inserted need only be provided. Also even where the indentations are holes and a rod member is used, they need not perforate the legs of the bridge provided the holes are deep enough to support the rod member and towels as a cantilever. The holes perforating the legs of the bridge as shown in Fig. 2, are disposed in relation to each other so that a rod member may be inserted through both holes and be supported by the bridge.

Further the bridge is shown in Figs. 1, 2, 4 and 5 as being hollow and open at an end. Although this is preferable when constructing a plastic clamping means for ease of construction and for producing a clamping means which is light in weight it is not a necessary feature of the invention and the bridge may be solid. When the bridge is solid a single hole perforating the bridge may be provided as the indentation for mounting the support member.

In the preferred embodiment shown in Figs. 4 and 5 the side of the bridge opposite the arms is inclined. This is merely for ornamental purposes and accordingly is not essential.

The members of an assembly comprising the clamping means and a member such as a ring or rod will necessarily have a vertical cross-section smaller than the vertical cross section of the holes where the member is mounted on the bridge. Where the cross-section of the member is much smaller than the cross-section of the indentation it may be desirable to provide on the member at its mounting points force fitting washers 8 as shown in Fig. 1 having a cross-sectional outer dimension larger than the hole and a void having a slightly larger cross-sectional dimension than a corresponding cross-sectional dimensions of the corresponding hole.

In Fig. 3 a plurality of the preferred clamping means shown in Fig. 2 are shown mounted on two vertical poles 10 and 10' extended between a floor 11 and ceiling 12 of a room to form a towel rack. In the towel rack shown in Fig. 3 a clamping means 1 on one pole is mounted so that the rod 7 passes through the holes 5 of the clamping means 1 and correspondingly passes through the holes 5 of a corresponding clamping means 1 on the other pole. However, only one pole may be used to form a towel rack and combinations of the assemblies shown in Fig. 1 and Fig. 2 may be

mounted on the pole. If more clamping means are needed they may be forced onto the pole without collapsing the extended pole.

As shown in Figs. 6, 7 and 8 each of the rods 17 may be constructed with a bend at one or both their ends, so that one end with a bend may be inserted into a hole of the bridge 2 to allow the rod to swing about the hole. In this way the rod may be positioned where it is easily accessible for mounting an article and then positioned for conveniently storing it by simply swinging the rod about the hole. By having a bend at the other end of the rod an article such as a towel is also restrained from slipping off the end.

It should be understood that the invention is not limited by the description of the aforesaid preferred embodiments and other modifications will be readily apparent to a person skilled in the field of art of the invention from reading this specification and as such are included within the scope of the invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. In a rack assembly having a pole, an article support member and a clamping means for clamping said member to said pole, the improvement comprising said clamping means consisting of two arms constructed of a resilient material held in a spaced-apart relationship by a bridge integral with both arms so that said arms are capable of forcibly engaging said pole of a predetermined diameter whereby said clamping means is slidably mounted on said pole, said bridge having at least one indentation thereon wherein the article support member is capable of being mounted.

2. A clamping means according to claim 1 in which the arms are constructed of polyethylene or polystrene and are curved to the contour of the pole.

3. Clamping means according to claim 2 where the bridge is hollow and open at one end.

4. Clamping means according to claim 3 where the indentation is a hole perforating a closed end of the bridge.

5. Clamping means according to claim 4 where another hole perforates the opposite closed end of the bridge.

6. An assembly comprising clamping means according to claim 5, and an article support member mounted in each of the holes.

7. An assembly according to claim 6 where the article support member is a rod.

B

8. An assembly according to claim 6 where the article support member is a ring.

9. A towel rack comprising a pole fixable at at least one end and an assembly according to claims 6 or 7 mounted thereon.

10. A towel rack comprising an extendible pole fixable at at least one end and a plurality of assemblies according to claims 6 or 7 mounted thereon.

11. An assembly according to claims 1, 2 or 3 where the indentation is a hole perforating the bridge, the article support member is a rod of a diameter smaller than the hole having a bend at least at one end which is mounted in the hole so that it is free to swing about the hole.

12. An assembly according to claims 1, 2 or 3 where the indentation is a hole perforating the bridge, the article support member is a rod of a diameter smaller than the hole and having a bend at both ends, one end of the rod which is mounted in the hole so that it is free to swing about the hole.

BEST AVAILABLE COPY

Fig. 1.

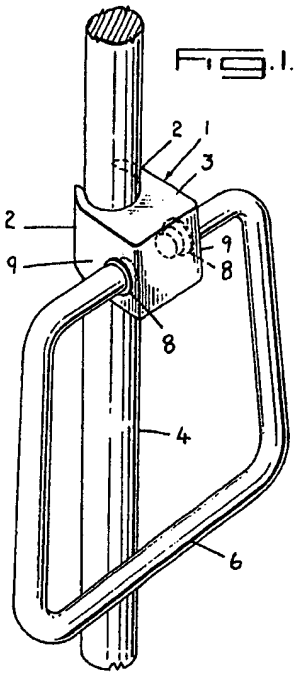
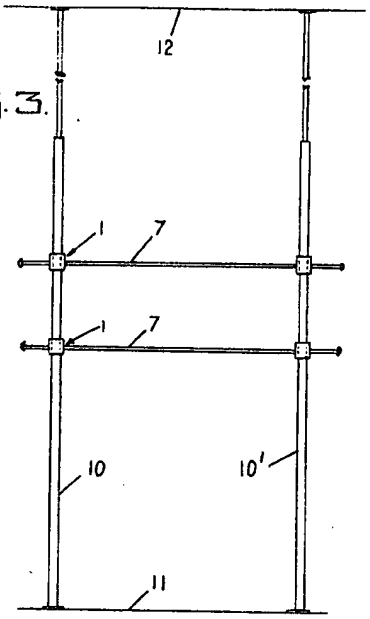


Fig. 3.



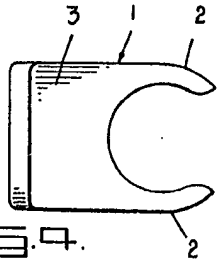


Fig. 4.

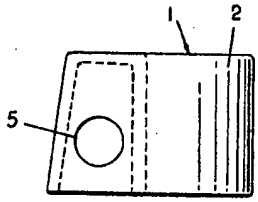


Fig. 5.

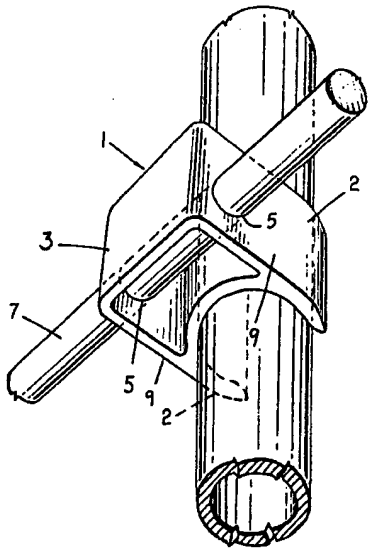


Fig. 2.

LEO MICHEL
ERNEST K. BORCHMANN
TERRY WELCH
Inventors

ATTORNEY

BEST AVAILABLE COPY

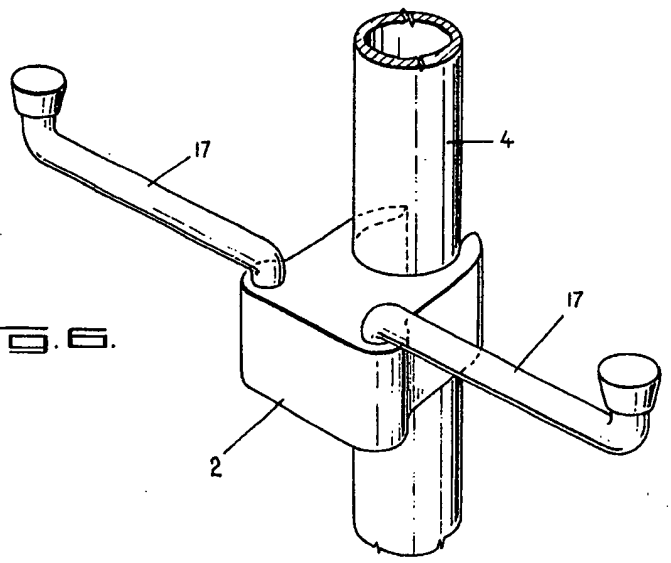


FIG. 6.

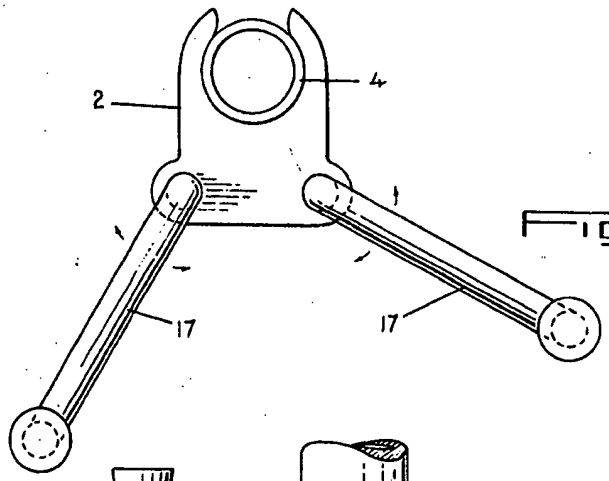


FIG. 7.

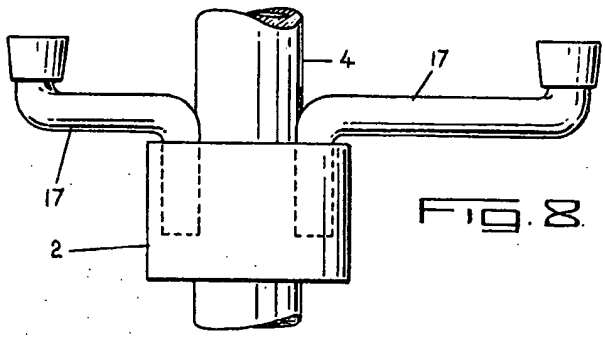


FIG. 8.

LEO MICHEL
ERNEST K. BORCHMANN
TERRY WELCH
Inventors

ATTORNEY

BEST AVAILABLE COPY